

1995119712

N95-26132

PROCESS, PROPERTIES AND ENVIRONMENTAL RESPONSE OF PLASMA
SPRAYED THERMAL BARRIER COATINGS

R.C. Novak
Pratt & Whitney Talon, Inc.
Rocky Hill, Connecticut

513-27

RRS 511-27
44443 1P

Experimental results are shown which demonstrate that the properties of plasma sprayed fully stabilized zirconia are strongly influenced by the process parameters. Properties of the coatings in the as-sprayed condition are shown to be additionally influenced by environmental exposure. This behavior is dependent on raw material considerations and processing conditions as well as exposure time and temperature.

Process control methodology is described which can take into consideration these complex interactions and help to produce thermal barrier coatings in a cost effective way while meeting coating technical requirements.

PRECEDING PAGE BLANK NOT FILMED

PAGE 28 INTENTIONALLY BLANK